



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,257	11/25/2003	Takayuki Wagu	02410283US	4101

7590

02/08/2005

McGuire Woods LLP
Suite 1800
1750 Tysons Boulevard
Tysons Corner
McLean, VA 22102-4215

EXAMINER

SCHWARTZ, CHRISTOPHER P

ART UNIT	PAPER NUMBER
----------	--------------

3683

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,257

Applicant(s)

WAGU ET AL.

Examiner

Christopher P. Schwartz

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

CHRISTOPHER P. SCHWARTZ
PRIMARY EXAMINER

DETAILED ACTION

1. Applicant's response filed 11/17/04 has been received and considered. Claims 1-20 are pending in the application.

Drawings

2. The drawings are objected to because as discussed in the last paragraph on page 32 of the specification it is unclear how "relief mechanism" 7, shown only schematically in figure 4 with an "arrow", lets fluid flow back to the master cylinder. It would appear that, as shown, this could not happen. It is also unclear where element 7 appears in figures 1-3. Applicant's should also elaborate on what constitutes element 7 in the specification, for instance possibly element 27. **No New Matter can be entered to either the specification or drawings**. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are

Art Unit: 3683

not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-3,8,11-17,19,20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alaze et al. '442 in view of WO 95/19282 and Buschmann et al.

Regarding claim 1 Alaze et al. discloses in figures 1 and 2 a brake fluid maintaining apparatus for a vehicle having, as broadly claimed, a master cylinder 11,12, a check valve, 18,53, a normally open electromagnetic valve 24 which is closable, a coil 56 responsive to an electric current.

Although it is presumed the valve of Alaze et al. is capable of operating in the claimed manner—that is during the pressure maintaining and no-maintaining states and the relief function via valve 21, Alaze et al. lacks a specific description of these features.

The reference to Buschmann et al. is only relied upon to show the notoriously well known typical states of such valves during traction and ant-lock control.

WO '282 is relied upon to show it is also notoriously well known to control the total biasing force(s) acting on the valve, and therefore the brake pressure levels in the wheel, by changing the level of the current applied to the coil.

It would have been obvious to have modified the device of Alaze et al., with the teachings of WO '282 and Buschmann et al., to control the opening and closing characteristics of the valve to predetermined braking design requirements.

Regarding claims 2,3 it is well known in the art to vary the forces acting on the valve, such as element 39 in Alaze et al., simply by varying the spring rate of the biasing spring 40 and level of current applied to the coil to desired design criteria of the brake system.

Regarding claim 8, as seen in Alaze et al., as modified, these requirements are met.

Regarding claims 11-17,19,20, as broadly claimed, the device of Alaze et al. is capable of functioning in the claimed manner, as modified above.

6. Claims 4-7,18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alaze et al. modified above as applied to claim 1 above, and further in view of Akamatsu et al.

Art Unit: 3683

Regarding claim 4, to have modified the fixed and movable cores thereof in Alaze et al, as taught by Akamatsu et al. at in figure 2 at 41a and 43 would have been obvious to the ordinary skilled worker in the art for the reasons discussed in Akamatsu et al. in col. 6 lines 10-18.

Regarding claim 5, the valve at 18,53 of Alaze et al. is capable of functioning in the claimed manner. See figures 1 and 2.

Regarding claims 6 and 7 the limitations directed to the stepped shaped housing and conical shaped valve body and tube shaped communication passages, are notoriously well known in the art, are easily seen in the references cited, but not applied, and would merely amount to an obvious engineering choice of design given the strong similarity between Alaze et al. and applicant's application. Some of these features can be readily seen in Akamatsu et al. Applicant lacks any criticality in the specification for these particular limitations.

7. Claims 1-3,8,9,14-17,19,20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 225731 in view of WO 95/19282 and Buschmann et al.

Regarding claims 1-3,8,9 due to the strong similarity between JP '731 and applicants design (as referenced in their specification) on page 1 the claimed features are believed to be readily apparent from the drawings of this reference.

WO '282 and Buschmann et al. are relied upon as previously indicated above.

8. Claims 4-7,10-13,18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '731 as applied to claim 1 above, and further in view of Akamatsu et al..

Art Unit: 3683

Regarding claims 4-7,10-13,18 Akamatsu et al. is relied upon, as above, for a modification of the JP '731 reference.

Conclusion

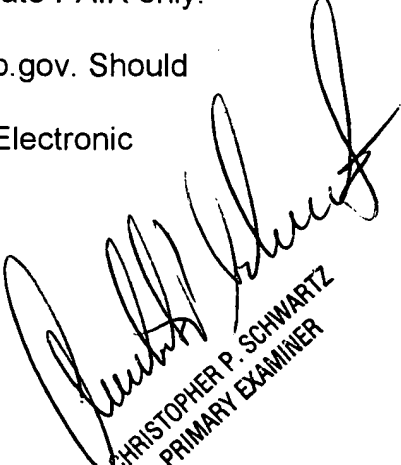
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited have been cited for showing what are well known designs common in the art regarding electromagnetic valve structure.

Applicant's should carefully review all of the references cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Schwartz whose telephone number is 703-308-0576. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Bucci can be reached on 703-308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CHRISTOPHER P. SCHWARTZ
PRIMARY EXAMINER